

AMERICAN VETERINARY REVIEW,

MAY, 1893.

EDITORIAL.

UNITED STATES VETERINARY MEDICAL ASSOCIATION.—The great event of this year, and that which interests all branches of science, art and industry on this Continent, is the World's Fair. The opening is taking place this month, and naturally the veterinary profession, young as it is on the Continent, will endeavor to be represented to its best advantage at this great exhibition of American advancement.

Upon the United States Veterinary Medical Association will devolve, by right, the greatest part of the work in this undertaking; and it will certainly be gratifying to all veterinarians at home to see how well aware the officers of this national body are of the importance of the responsibility placed in their hands.

Among some of the new and important facts connected with the next annual meeting is the first notice of the regularly appointed dates for the great occasion, which has just been made public. It reads as follows:

To the members of the U. S. Veterinary Medical Association, and all members of the veterinary profession in the United States and throughout the world :

The United States Veterinary Medical Association has selected the dates of October 17th, 18th, 19th and 20th for their International Congress, to be held on the grounds of the World's Fair, at Chicago, Ill., in conjunction with the World's Fair Auxiliary Congresses; and all national, state and local associations throughout the world are hereby extended a most cordial invitation to send delegates to the Congress, and to take part in the deliberations of the same.

Every arrangement that is possible will be made in the interest of all those who desire to attend, and information as to railroad rates, hotel accommodations and all other conveniences will be cheerfully afforded by addressing the Secretary of the Association.

By order of the President,

W. L. WILLIAMS.

W. HORACE HOSKINS, *Secretary*,

12 So. 37th St., Phila., Pa.

The dates selected differ from those which are laid out by the Constitution and By-laws of the Association, and they will no doubt interfere with the obligatory duties of some of the members; but no matter, the interests of the Association and those of the profession are at stake, and they must take precedence of everything.

That the meeting will be of more than usual interest is evidenced by the information that the indefatigable Secretary, Dr. Hoskins, asks us to publish:

To Members United States Veterinary Medical Association:

I have the pleasure of announcing to the members of the Association and the profession in general, at home and abroad, that there will be two valuable contributions offered to our Association at its International Meeting, which should attract the attention and interest of the entire profession of the world. They are the result of several years' investigation on the subjects of "Swine-Plague and Hog-Cholera," and "Contagious Pleuro-Pneumonia."

The first paper will be offered jointly by Dr. A. W. Clement and Dr. Wm. Welch. The second paper will be offered by Dr. A. W. Clement, and it will be accompanied by the most exhaustive collection of pathological specimens which have been gathered together in the world.

W. HORACE HOSKINS, *Sec*

And as all the preparations, notices, receptions and publications, etc., will incur extra expense, the Comitia Minora has wisely provided for it with the following resolution:

JANUARY 1, 1893.

Notice to all Members U. S. V. M. A.:

Upon recommendation of the Comitia Minora, the following resolution, approved by the Association, carrying with it the power of levying an assessment, was adopted at Boston, September 20th, 1892:

Resolved, That a special assessment of \$5.00 be levied on each member to defray the extraordinary expenses that will be incurred by the International Meeting at Chicago in 1893.

Said assessment is now due, and may be sent to the Secretary's office by check, money order or draft.

W. HORACE HOSKINS, *Secretary*.

W. L. WILLIAMS, *President*.

Of course these are but preliminaries, and we will on more than one occasion before the meeting have to present the subject to our readers.

But there is another which is already pretty well settled; that is, the subject of the prizes which are offered by the Association and the veterinary press. The following communication, received from the Prize Committee, will be of interest to those who may entertain the idea of entering the competition:

The Committee on Prizes of the United States Veterinary Medical Association desires to call the attention of its members to the following announcement: It is the purpose of the Association to give the sum of fifty dollars, to which the editors of the *AMERICAN VETERINARY REVIEW* and *Journal of Comparative Medicine* have each added twenty-five dollars, as a first prize for the best paper that may be submitted to them on any professional subject.

In addition to this, the editors of the *AMERICAN VETERINARY REVIEW* and the *Journal of Comparative Medicine* will each give plate to the value of twenty-five dollars, making a total prize of fifty dollars, for the second best paper, as above.

Papers for this competition must be legibly written, and in the hands of the committee by August 1st, next.

In compliance with an order of the Association, the prize papers must be read and defended at one of the regular meetings. The successful papers in this competition will probably be called up at the coming annual meeting in Chicago, at which time and place the prizes will be awarded, the final award being made by the committee. The article is then to become the property of the Association.

Competitors shall use a *nom de plume*, retaining in their own way the means of after identification.

Papers should be addressed to Charles P. Lyman, Chairman, 50 Village St., Boston, Mass.

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| C. P. LYMAN, <i>Chairman</i> , 50 Village St., Boston, Mass., | } <i>Committee.</i> |
| W. H. LOWE, 190 Ellison St., Paterson, N. J., | |
| L. McLEAN, 14-16 Nevins St., Brooklyn, N. Y., | |

It is hoped that the arrangements above-mentioned will work well, and remove the objections and difficulties which were encountered some years ago when prizes were offered before the Association. The only objection, we think, that is likely to interfere with the smooth execution of the work of the committee is the request that the "prize papers must be read and *defended at one of the regular meetings*," and "the successful papers in this competition will probably be called up at the coming annual meeting in Chicago." This seems to

us rather difficult. However, the Prize Committee has laid down the conditions of the awarding of the prizes—of course their preparations are not final; but what is, are the prizes offered by the Association, with the various additions made by the two periodicals of veterinary medicine published in New York.

IS IT, OR IS IT NOT?—That good veteran pioneer of veterinary practice in the United States, Dr. John W. Gadsden, is well known by every practitioner in this country. After several years of lucrative practice, which has permitted him to accumulate sufficient wealth to retire from active work, he has found nothing better to employ his time than taking advantage of every opportunity to investigate the presence of pleuro-pneumonia, and is always ready to spend his time and his money to more fully add to his already extensive acquaintance with everything connected with that scourge of bovines on this side of the Atlantic.

At the last banquet of the Alumni Association of the American Veterinary College, Dr. Gadsden discussed at length the subject of the presence of pleuro-pneumonia among American cattle exported to England, and asked if the question as to whether the disease detected in the American steers was or was not pleuro-pneumonia could not be settled.

The answers, "*It is*," of some, and "*It is not*," of others, Dr. Gadsden considers a disgrace to the profession, and very properly suggested the propriety of having the question settled by an international committee of pathologists and veterinarians. It certainly seems very strange that this question has not been solved, and that there should be such difference of opinion as expressed by such authorities, English and American, on pleuro-pneumonic lesions as there is to-day.

A letter from Dr. Wray, who has been in England for several years as the representative of the Department of Agriculture (Bureau of Animal Industry), which he wrote a while ago, and which was presented at the meeting of the Alumni Association of his Alma Mater (the American Veterinary College), throws some light on the question, and presents some

interesting facts in connection with the controversy. It reads as follows:

LONDON, England, Feb. 21, 1893.

DR. J. F. RYDER, *Foreign Correspondent Alumni Association of the A. V. C. Liverpool, England:*

MY DEAR SIR:—In reply to your letter requesting a line from me in reference to our work in London, and anything else that I thought would be interesting to the Alumni Association of the American Veterinary College, I take pleasure in sending you the following, with a hope that some portion of it may interest some of the members.

For several years previous to 1890, the U. S. Department of Agriculture received several reports from the English authorities stating that cattle affected with contagious pleuro-pneumonia, were being landed at the ports of this country.

Previous to 1878, American cattle were admitted to this country, and allowed to enter the interior without restraint, but owing to the prevalence of contagious pleuro-pneumonia in the United States at the time, a law was passed by the Parliament of 1878 that compelled all cattle from the United States to be landed at ports designed and arranged for their reception, and to be slaughtered at these ports within ten days after their arrival, also that not a single live animal was to be allowed to leave any of these ports.

Owing to the passage of this law, which reduces the price of American cattle landed in this country from ten to fifteen dollars per head, and to prevent the spread of that insidious disease, contagious pleuro-pneumonia, to the vast cattle ranges of the West, led Dr. D. E. Salmon, the efficient and worthy chief of the Bureau of Animal Industry, to make a vigorous attack on this disease, by having very stringent laws passed by Congress, whereby the movement of cattle throughout the United States could be controlled, and the disease eradicated.

Through the manner of work outlined by Dr. Salmon, the veterinarians connected with the U. S. Department of Agriculture were successful in eradicating contagious pleuro-pneumonia from several sections of the United States; and reports still continuing to be received from England "that contagious pleuro-pneumonia was being landed here," caused the authorities of the United States to doubt the accuracy of the diagnosis of the English veterinarians and so Drs. Melvin, Ryder and Wray, were sent to this country and stationed at the ports of Liverpool, Glasgow and London respectively, for the purpose of ascertaining what form of palmonary disease the English veterinarians were calling contagious, also if any contagious disease was landed in this country from the United States to immediately report its charater, with a description of the animal affected, so that the proper measures could be adopted for the eradication of such disease.

The American inspectors arrived at their respective ports and commenced work on August 31st, 1890.

The system of inspection by the English authorities consisted, at that time, of standing on the pier and watching the cattle as they ran off the ship, if any animal appeared sick or lame, he was immediately singled out from the herd and driven off by himself for a future and more critical inspection. Very often a

ship arrived when the English inspector was not present, in that case the cattle were driven in a certain lairage and there kept under lock and key, in charge of the customs officials, and no one allowed to enter the lairs until the cattle were inspected, which consisted in the cattle being driven from pen to pen in as near single file as possible.

This system of inspection was kept up until October 1st, 1892, when it was substituted for a system whereby all lungs taken from American cattle were collected and carried to a house set apart for the purpose of receiving them, for the veterinarian's inspection, in addition to seeing the cattle when they were unloaded, or very soon after.

Owing to the expense, this latter system was abolished and the old system renewed on the first day of February, 1893. As the expense was only fifteen dollars a week, there is an apparent queer circumstance connected with the system of inspection that was established on October 1st, 1892, as follows: There had not been a case of alleged contagious pleuro-pneumonia found in American cattle between February 17th, and October 13th, 1892, a period of very nearly eight months. During that time the United States Minister had made several demands for the raising of the restrictions against the American cattle; he was invariably met with the reply from the English authorities: "We are not satisfied whether contagious pleuro-pneumonia exists in the United States or not." On the 26th day of September, 1892, the Hon. J. M. Rusk issued a proclamation that contagious pleuro-pneumonia was totally eradicated from the United States. As soon as the news of this proclamation reached this country, the new system was established and continued during the fall and winter; now that spring and good weather is approaching they have abolished the system, showing very conclusively that the English authorities do not expect to find these so-called cases of contagious pleuro-pneumonia during good weather.

The system of inspection that I have followed since my arrival, is to inspect the cattle on arrival, again in the lairs when they are tied up and previous to sale, besides seeing a great many slaughtered.

The American veterinarian will compare very favorably with his English cousin, notwithstanding the fact that American Veterinary diplomas are not recognized in this country. I cannot compare the veterinarians of America and England any better than to quote the old phrase of "by their works ye shall know them," and describe the actions of the official veterinarians connected with the American and English governments, in connection with the cases of alleged contagious pleuro-pneumonia that has been landed in this country.

On February 4th, 1890, a dead bull, per steamer Sorrento, from New York, was landed at Deptford. The following day a post mortem examination was held, which revealed interstitial pneumonia of the posterior lobe of the right lung. As this case was diagnosed by the English experts as a very well marked case of contagious pleuro-pneumonia, sections were immediately taken to Professor Williams, of Edinburgh, who, with his son, upheld the opinions of Drs. J. E. and J. F. Ryder, Melvin and myself, that the disease was not contagious pleuro-pneumonia. These same sections were subsequently shown to Professors Bowhill and Hunter, who coincided with the diagnosis made by the American veterinarians and Professor Williams.

Since then several cases have been found which were claimed by the English veterinarians to be contagious pleuro-pneumonia. In the majority of cases, sections have been sent to Professor Williams and to Professor Nocard, who both, in every case submitted to them, decided they were not contagious, but other forms of pneumonia, non-contagious in character.

Although some of these cases are, to a certain extent, marbled in appearance, they are not, in my opinion, contagious pleuro-pneumonia, for the following reasons: First, since my arrival I have not seen a single animal assume the characteristic position of contagious pleuro-pneumonia; all that is noticeable is dyspnea and accelerated respiration, moist and not painful cough, with a temperature varying from 102 to 104 degrees Fahrenheit. As the animals are not used to being handled, auscultation and percussion is out of the question. There is very little, if any, protruding of head and neck, no aching of the back, very little turning out of the elbows, no knuckling of the hind ankles, no rigidity or unhealthy appearance of the skin, and no stertorous breathing or grunt, as in contagious pleuro-pneumonia.

Second. The exudation into the pulmonary lobules is of a much lighter color, showing the red blood corpuscles are present in large numbers. The lymph does not appear so coagulative, gray hepatization is present, fatty degeneration and effusion and absorption of serum with a dilatation of the lymphatics to a very large extent is also present; pleurisy of the pleura-pulmonalis is present over the diseased area; not in a single instance has the pleurisy extended to the pleura-costalis. There is no plugging of the bronchial tubes and pulmonary arteries; no infarction; in only one case was there any necrosis, and then only a section about the size of a quarter dollar was so affected; there is no circumscribed area of the affected portion of the lung; there is no effusion into the thoracic cavity as in contagious pleuro-pneumonia. There has not been a so-called chronic case of contagious pleuro-pneumonia found since we commenced work.

Third. The diagnosis of the American veterinarians stationed in this country has been upheld by such eminent authorities as Professor Nocard of France, Williams, Hunter and Bowhill of Edinburgh, Salmon of Washington, and J. E. Ryder of New York, also by other disinterested and distinguished veterinarians of this country.

Fourth. Cattle from the same districts in the United States are shipped to the ports of London, Liverpool, Glasgow, Hull and Bristol; not a single suspicious case has ever been reported from the three latter ports, showing conclusively a difference of opinion between the inspectors located there and those at the ports of London and Liverpool.

Fifth. In not a single instance have the inspectors of the United States Department of Agriculture been able to find a single case in the United States where the origin of the alleged cases were traced by the efficient system now in force for export cattle, and for the movement of cattle throughout the union.

I think, gentlemen, from the overwhelming evidence here quoted, every word of which can be substantiated, that you will be convinced of the correctness of the diagnosis made by the American veterinarians stationed in this country, two of which, I am proud to say, are graduates of the American Veterinary College and members of your honored Association.

For several years the Department of Agriculture and the Agricultural Societies of Great Britain and Ireland have been doing their utmost to prevent live cattle coming to this country; disease has been the main excuse, while cruelty to animals has been brought up from time to time.

Since the regulations passed by the United States Department of Agriculture March 2d, 1891, for controlling the movement of export cattle, the loss of cattle at sea has been reduced from over six per cent. to less than one-half of one per cent. It is an unusual thing for a vessel to lose any cattle, or to land in crippled condition even during the winter months.

The object in shutting out the live cattle is to assist the British farmer and breeder. The question of competition from dressed beef and mutton has not been brought up until this session of Parliament, where a bill is now pending for the marking of all foreign meats; if this bill becomes a law, I presume it will be a common thing to see at some of the butcher shops; meat labelled "made in the United States of America," as the law will apply to the live as well as the dead meat imported.

I don't think the English authorities are half so afraid of disease in foreign animals as they are of competition. The United States of America is the only country in the world that is sending cattle to this country at the present day.

It may interest some of you gentlemen to know that between December 27th, 1891, and January 2d, 1893, there has been 130,530 head of live cattle shipped to London, 149,782 to Liverpool, and 35,811 to Glasgow, making a grand total of 316,123 cattle shipped from the different ports of the United States, while thousands of quarters of dressed beef are shipped every week from the ports of New York, Boston, Philadelphia and Baltimore.

When you come to consider what amount of food is necessary to feed the 37,795,400 inhabitants of Great Britain, you can readily see that this is a consuming country, and not a producing one as far as food is concerned. There is no doubt if England were thoroughly besieged that the inhabitants would be in a starving condition in less than two weeks. The value, in pounds sterling, of the food imported during 1891, is as follows: Live animals 9,244,589; meat, butter, cheese and eggs, 43,329,207; wheat and flour, 39,901,197; grain, hops and sugar, 47,882,979; fruits, nuts and vegetables, 9,997,844; making a total of 150,355,816 pounds sterling, or three pounds, 19 shillings and 6 pence per head. In addition to this there is a vast quantity of fish, poultry and game imported.

The prevailing diseases in London at the present day are pulmonary complaints and glanders. The law for the proper control of glanders only provides for quarantine, and not for slaughter at government expense, I believe some of the parish authorities do slaughter and pay for horses so diseased.

The English authorities claim that contagious pleuro-pneumonia has been thoroughly eradicated; but as only four months of cold weather has elapsed since the finding of the last case, and as they wait for cases to be reported instead of hunting them up, I think hardly time enough has elapsed to be sure that isolated cases will not turn up in the future.

Notwithstanding the fact that no live animals are allowed to enter this country, and have not been for more than a year, foot-and-mouth disease breaks out at short intervals in different sections of the country remote from each other.

The English authorities have always claimed, heretofore, that every outbreak of foot-and-mouth disease in this country was directly caused by the importation of foreign animals.

With many wishes for the success of the Alumni Association of the A. V. C. and their Alma Mater.

Very sincerely,

W. H. WRAY, D.V.S.

Chief U. S. Veterinary Inspector for Great Britain.

VETERINARY LEGISLATION.—It is some time since we had occasion to call the attention of our readers to new attempts made to regulate the practice of veterinary medicine in some of our States. To-day New York State is once more in the field. It seems that, notwithstanding the laws and amendments passed by the Legislature in Albany in 1886 and 1887, the practice of our art is not yet sufficiently protected or regulated; and to that effect a new bill has been presented to the New York Legislature as an amendment.

The question of the necessity of such a law is rather doubtful. Of what advantage can it be when we consider the nullity of its predecessors, and the ignorance displayed in their enforcement? By the New York State Veterinary Society, we are told, the present project is fathered. We can scarcely believe that such an honorable body would urge the passage of an act which would bring us back to the time when Societies were granted the privilege—so shamefully abused—of qualifying men to register by the granting of a certificate of membership. The law, as it is, seems to us but an extension of the privileges offered by that of 1886 and its amendment of 1887; and when it is considered that our veterinary schools are improving their curriculum and increasing the length of time of studies at college before graduation, it must necessarily be evident that there is no necessity for its support; but, on the contrary, that of its defeat before the Legislature.

With the steps taken in improving the education given at our schools, the only thing which is now imperative is the enforcement of the laws already in existence, and the prosecution of those who, not having complied with their requirements, are still, in defiance of them, practising our art. It belongs to the New York State Veterinary Society to imitate

her sister societies in other States by seeing that the existing law is not a dead letter.

The newly projected law reads as follows:

AN ACT to amend section three of chapter three hundred and thirteen of the laws of eighteen hundred and eighty-six, entitled "An act to regulate the practice of veterinary medicine and surgery in the State of New York," as amended by chapter one hundred and sixty-six of the laws of eighteen hundred and eighty-seven.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section three of chapter three hundred and thirteen of the laws of eighteen hundred and eighty-six, entitled "An act to regulate the practice of veterinary medicine and surgery in the State of New York, as amended by chapter one hundred and eighty-six of the laws of eighteen hundred and eighty-seven, is hereby further amended so as to read as follows:

§ 3. Any person who has been practicing veterinary medicine and surgery as a profession in this State for a period of not less than three years preceding the passage of this act, without having obtained a diploma or certificate from a legally chartered or incorporated veterinary school or society, as provided for in section two of this act, must register on or before January first, eighteen hundred and ninety-four, after the passage of this act, upon making and filing with the clerk of the county in which he resides an affidavit stating that he has been so practicing veterinary medicine and surgery for the period hereinbefore prescribed.

§ 2. This act shall take effect immediately.

AMERICAN VETERINARY COLLEGE.—If there ever existed in the minds of the officers of this institution any fear or hesitancy in the propriety of making the changes which have been considered for some years back, decided upon some eighteen months ago, and going into effect this year, viz., the reorganization of the entire curriculum and the lengthening of time of studies at college, they must have vanished at

presence of the numerous congratulations and words of approval which are received every day, from all parts, relating to the new departure of that universally known institution.

Among the most hearty and sympathetic ones is that which emanates from her Alumni Association, expressed by the resolution presented at the last meeting of the Association, and so touchingly worded to express the devotion of all those who unanimously voted for it.

The publication of this resolution is but a modest expression of the feelings of thanks entertained by the Trustees and Faculty of the institution at the reception of this expression of love and devotion from a body of Alumni towards their Alma Mater. Should the institution be in need of stimulus in the perfect execution of her calling, where could she find it better than in the following lines :

Ever faithful to the trust imposed by the obligations of a college, whose work was to be in a new field and among a people whose wants and needs were but little known, the American Veterinary College, ever desirous of giving the best education, and knowing no step backward in her lofty career, has fully sustained the hope and wishes of her many friends throughout the entire world ; and

Whereas, In the further completion of her high aims and purposes, she has again placed herself foremost in the ranks of colleges peculiarly equipped for successful work, by adopting an obligatory three years course.

Whereas, We, her Alumni Association, assembled to-day from many parts of our country to again renew our loving devotion and allegiance to our Alma Mater, do most heartily rejoice in this new step, and an added joy comes to greet us to-day as we more fully realize the importance of this movement.

We most heartily congratulate our Alma Mater on this wise step on her part, and in so doing we pledge to her a renewed interest in her welfare, a more earnest support for her in the future, and an added zeal in our labors to promote the good work she has so well done in the past ; and we prophesy for her a future of such merit that will rank her in history as the pioneer of a higher veterinary education, a loftier standard for our profession, that shall grow brighter and better as the clearer light of to-morrow may cast upon her its penetrating vision.

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| W. HORACE HOSKINS, | } Committee. |
| W. B. E. MILLER, | |
| WM. HERBERT LOWE, | |

ORIGINAL ARTICLES.

ADDRESS DELIVERED BEFORE THE AMERICAN VETERINARY
COLLEGE.*Mr. Chairman and Gentlemen of the Graduating Class :*

There is a beautiful legend of Arabia which is referred to by the author of "Ben Hur," but which is as old as Arabia itself. It describes in charming manner the origin of the horse, and indicates the kindly love which the Arab bears him. God gave the Arab, it says, a measureless waste of sand with treeless mountains and bitter water. The poor man complained, and God pitied him and said : "Be of good cheer, for I will twice bless thee above other men." The Arab heard and gave thanks, and started out to find the blessing. He travelled all the boundaries first and failed ; then he made a path into the desert and went on and on, and in the heart of the waste there was an island of green, very beautiful to see, and in the heart of the island, lo, a herd of horses ! He took them joyfully, and kept them with care for what they were—best gifts of God. And from that green isle went forth all the horses of the earth, even to the pastures of Persia and to the dreadful vales that are chilled by the blasts from the Northern seas. Such is the story of their origin, and we all know how the Arab, the Persian, and, in fact, all the Eastern nations have a tender regard for their horses ; they are members of their family, naming them after the stars, which are their guides at night, "borrowing their names in gratitude and giving them in love," and the horse of Arabia has responded to this affection by beauty, loyalty and intelligence, for it is a tradition in the East that the horse by long association finally unites the soul of its master to its own sense, until they come to feel all we know of ambition, love, hate and contempt, so much so that it has come to be a saying that "in war they are heroes, and in trust faithful as women." Now, you will say that this is sentiment and fancy. Yes, I will admit it. But have you ever thought what comes

of sentiment? For centuries the English-speaking people in their greed for wealth abused and maltreated their horses in a way that shocked every sensibility of human nature. In 1866 Henry Bergh appealed to the sentiment of the country, and he himself was startled at the response. Public sentiment, asleep for a hundred years, was aroused as if by magic, and his appeals went ringing around the world. I hold in my hand the last report of the American Society for the Prevention of Cruelty to Animals, and in it I find reports from every State of the Union—from Canada, from Mexico, from South America, from Brazil, and from the far-off islands of the sea. Working on the line of pure sentiment, Henry Bergh has unconsciously achieved what may almost be called immortal fame.

I knew Henry Bergh in his lifetime—a silent man, a unique man, a thoroughly unselfish and noble man. For him and his work we are truly thankful, but his work was but the beginning; it was negative and looked only to protection. What we now want and must have, and I truly believe *will* have in the near future, is a positive sentiment which will not only save our dumb animals from abuse, but will insist that they shall be looked after in trouble, protected from disease, and cured in sickness. We cannot in the nature of things have for them the same care as does the Arab of the desert; but we can do something in that direction, and our horses will not only respond to this treatment, but we will find that it will *pay* in every sense of the term. Do not despair of public sentiment if the purpose is high. Shyer than gravitation and stealthier than the growth of a forest are the movements which create public opinion in the life of man.

Henry Bergh might well have despaired, as he was maligned, abused and sneered at as no other man ever was before. These facts have passed from the memory of most men, and now many are glad to do him honor.

Gentlemen of the Graduating Class, your time is coming—probably it has arrived—when even sentiment will see to it that a sick *horse*, equally with a sick *man*, shall be cared for by educated and intelligent physicians, and this I say with

the utmost confidence, for if human nature and human kindness fail to respond to it, human cupidity will.

It is, therefore, a source of great pride that I can refer to your college as a pioneer in this field of endeavor—in fact, it stood alone for many long years performing its duties modestly and faithfully.

In 1875 this college was organized, and pursued the even tenor of its way during this period without attracting any special attention, but carrying on its work with faithful zeal and high professional character. Yet there was a silent education of public sentiment in behalf of such a school. In 1885 Mr. Lippincott donated \$50,000 for the establishment of a veterinary department in the University of Pennsylvania, and to-day, by generous contributions, there is a large, well-appointed department, which is reflecting credit upon that university. Harvard University and the University of Minnesota have also established similar departments, Harvard as early as 1883, Minnesota only of late years, and they are fostered by liberal contributions and supplied from the college funds. Schools in Washington, Baltimore, Cincinnati and also in Chicago, became followers of this school after long delays; but through all these years Dr. Liautard has stood faithfully by his work, and has carried on his enterprise without help and without aid, for the college is in every sense self-supporting. All honor, I say, to Dr. Liautard and his associates for their courage and fidelity, and may they all live long enough to see their full hopes realized in this high and worthy undertaking. Nearly five hundred graduates from this college are now pursuing their vocation in this country—in the army, on the frontier, in various schools and hospitals, conducting medical journals and occupying official positions abroad. But while I am commending the American Veterinary College and other educational schools of the country, what shall I say to the attitude of the Government toward this important branch of education? What shall I say of our much vaunted and expensive Department of Agriculture and its Bureau of Animal Industry? The governments of Europe have their corps of educated veterinary sur-

geons, and all of them hold official rank with corresponding salary, having equal positions with the medical staff—in fact, constituting a medical staff by themselves. In France, in Germany, in Italy, in Austria, in Russia and, I think, in Turkey, the veterinary colleges are Government institutions, paid from Government funds, and controlled by Government officials. In all these countries the colleges are of a higher grade, and at Berlin and Hanover they have been raised to the position of universities. The students who graduate from these schools secure recognized positions in the army, in the quarantine and health boards, and in other official stations. In England, although the schools are not conducted by the Government, yet they are under Government control in a modified form, and their graduates are all eligible to official positions.

In this country, however, these colleges are not only not controlled or patronized by the Government, but their graduates are scarcely recognized in any way, and that, too, in a Government that boasts of a Department of Agriculture and a Bureau of Animal Industry! The Government, for example, employs in the army a graduate of a veterinary college thoroughly equipped for his duties, and if he humiliates himself enough to accept the position he appears on the pay-roll as a day laborer, and is paid the extravagant price of seventy-five dollars a month! What service could you expect under such conditions, and what right-minded student would subject himself to such degradation? We export millions of dollars' worth of beef and hogs abroad every year, and what can I say of the education and training of the inspectors employed by the Government without being charged with disloyalty. That the inspection is incomplete and imperfect is notorious, and what else could be expected if the Government degrades the profession and pays day laborers' wages to the graduates of our veterinary schools and colleges. Do you wonder that Germany prohibits the importation of American pork, or that England in every possible way keeps out American beef? We, of course, attribute it to base and selfish motives, but behind it all there is another and different reason, and a right good reason, too, in my judgment.

This state of things will continue until the Government lends its moral support to veterinary science by a recognition of our graduates as men bearing professional rank and worthy of professional compensation.

The great Department of Agriculture expends large sums of money in sending correspondents over the country and publishing volume after volume of letters about the number of horses and sheep in different counties and States, and republishes, with much commendation, the statutes enacted by the different States tending to prohibit the introduction of diseased cattle and urging strict quarantine regulations, but not one dollar does it give towards the education of men who can successfully meet these startling difficulties, and not one word does it lend to their encouragement or help. I sometimes think that there will be no real substantial progress in veterinary science in the United States until the country is devastated by such terrible epidemic plagues among horses and cattle as have visited Europe and India and Australia. The animal loss in India alone has reached more than thirty millions of dollars. It has been even worse in Australia and South Africa. Once let the dreaded Russian typhus, that sweeps off the cattle from the Russian plains by the thousands in a single day, make its appearance, not only the Government, but the farmer and the cattle raiser and the cattle owner the country over would wake up to the necessity of encouraging veterinary education, and would be only too glad to make generous contributions for liberal veterinary culture and veterinary research. And what shall I say of individuals who own stables in this city alone of the value, in some cases, of half a million dollars—horses that they admire and care for, in some respects, as they would their own children, and yet they do not turn their hand, nor contribute a single dollar, nor encourage in any shape or form the up-building of a worthy veterinary college in this city. Where are the lovers of horses, who are not only patrons of the turf, but are liberal and generous givers to all worthy objects?

New York City doubtless has the finest horses and the best bred dogs in the world, and it has more of them. It also

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has the best hospitals, and the best medical schools, and in general the most advanced culture in scientific study in the world. The most expensive cattle are found within the borders of the State, and yet this great center has no endowed veterinary school. Why should not the City College, or the City University, or Columbia College do what Pennsylvania, Harvard, Iowa and the University of Minnesota have done? Why will not our public-spirited citizens take it in charge and establish departments in some of these schools? The time is opportune, the occasion is urgent. A new and earnest interest, a general endowment, and an open-handed support would give a return that we cannot even now conceive. The American Veterinary College has no mean envy, and will welcome any help to the general cause. Whether it comes to our own school or to some other is a matter of no great moment, provided it comes, and comes soon, and comes to the City of New York, where, of all places in the country, it is most needed. Emulation may exist, but never jealousy, in the common pursuit of science and of truth.

Is it that I misapprehend the subject, or has not public attention been aroused to it? Your child can tell you his or her trouble—the diagnosis is not difficult, and the remedy and the treatment are relatively simple—but if the dumb animal in your care falls ill, and by its beseeching, piteous face and speechless pleading asks for help you call a stable boy and leave it to its fate, or what, perhaps, is worse, you send for a worthless charlatan, with his traditional medicine, a so-called “horse doctor” who has received no education whatever and knows nothing of his duties, and in a majority of cases adds brutality to ignorance. These gentlemen, having done this, think they have done all they should do. If they discover an ignorant driver beating his horse in the street they become violent and hasten to make complaints to the Society for the Prevention of Cruelty to Animals. This is well, but he has committed as great a cruelty. Yes, a *greater* cruelty in allowing his horse to be agonized by internal suffering, and refusing to furnish intelligent and educated relief. Better, far better, beat your horse in the street than to allow

him to die ignorantly cared for. Do you tell me that Nature provides proper remedies? Is not the argument equally true of your child? Besides, you have taken him out of Nature and his life is artificial, and you are bound in all honor to meet this changed condition and see that he is intelligently treated by men who are properly educated and are fitted to act in such an emergency. The body of the horse, as of all domestic animals, is but the body of the man, and is subject to all his ills and sicknesses, and, in my judgment, his cure involves greater knowledge and greater skill on the part of the physician, for he cannot assist himself nor in any way aid his doctor, and yet you lend no hand and give no encouragement towards changing the condition of these schools or assisting them by your money or your presence.

Did you ever think what interests are at stake in this matter and how much money is also involved in a proper consideration of the questions before us? It seems to me at times that I must be under some misapprehension about this whole question, for I cannot conceive that there should be such indifference to proper veterinary education as seems to exist the country over, if we take into consideration for a moment the terrible sanitary interests involved, touching as they do our homes and our families. The Department of Agriculture has as its most important bureau the Bureau of Animal Industry. \$500,000 was appropriated by Congress and expended by this Bureau, in 1887, for the extirpation of pleuro-pneumonia among cattle, and I assume that similar amounts are used every year for this and kindred purposes. Congress has enacted a wide-reaching statute for the suppression of contagious and infectious diseases among live stock, and has established strict quarantine laws in so far as it has the power. The State of New York has passed equally strict laws on this subject, and authorizes the Governor to employ competent veterinary surgeons to maintain quarantine. Ohio, Oregon, Missouri, Indiana, South Carolina, Massachusetts, Nevada, and, in fact, all the States, in one form or another, have enacted stringent laws to prohibit the bringing of diseased animals into the State, and for the restraint and sup-

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pression of contagious and infectious diseases among cattle and other live stock, authorizing the expenditure of large sums of money for this purpose, and yet to-day in the State of New York, with its millions of inhabitants and its millions of investments in horses and cattle, there is not an endowed veterinary college, and but for the unaided efforts of yourself, Mr. President, and your associates, there wouldn't be a single educational school within its borders. The life and health of the community is involved, and we may well ask ourselves what it means. But aside from the questions of health and self-preservation suggested by a proper cattle quarantine, proper oversight and protection from diseased and infectious meat used in daily consumption, has it ever occurred to you what tremendous financial questions are at stake? Have you any conception of the amount of money invested in the domestic animals of the country that need surgical and remedial care—care beyond shelter, food and water—yes, care greater and more scientific than that which is given to the human family, if you would save them from widespread disease and ultimate death? In the State of New York to-day there is invested in milch cows alone, the sum of \$47,002,116, and the milch cows and other cattle of the United States, as estimated by the Department of Agriculture, amount in value to the enormous sum of \$977,972,693. In the presence of such amounts of money, when a correct dietetic treatment is necessary for its proper preservation, is it strange that we express surprise at the supineness and indifference of the owners of this vast wealth in regard to the right education of men who can protect it? The new State of Colorado has invested in live stock the sum of \$29,199,149, and even the mining State of Wyoming has \$12,359,355, and the mind becomes dazed if an attempt is made to estimate the aggregate capital in all the live stock of the country, including horses, cattle, sheep and swine. Billions of dollars would constitute the unit of calculation. Now, this indifference to the protection of our wealth has arisen, no doubt, from the prejudice of the farmer to "book learning," as they choose to call it, although they insist upon the education of their family

physician. But what shall be said of the educated man who can reason upon the subject and who knows that his horse really requires more capable skill than his child, if he would effect a cure? This may seem a broad statement, but it is true and will soon be recognized. The world moves, and what Henry Bergh did for the temporary amelioration of the brute creation, some other man will do for their permanent protection and safety, as well as for the protection and safety of the community. It may be a life-work, as it was in his case, but that it is coming, and coming soon, is as sure as the rising of the sun in the morning.

Now, Gentlemen of the Graduating Class, this discussion of the great subject may seem a digression, but I think it fraught with deep import to you. You belong to a very old and honored profession; as old as that of human medicine.

The Egyptians were thoroughly versed in veterinary medicine and veterinary surgery. Four hundred years before Christ, Hippocrates wrote essays on the subject, and two hundred years before Christ, Mago, of Carthage, compiled and published twenty-eight volumes—a veritable library of information and learning. The Greeks and the Romans had their schools of veterinary medicine, so to speak, and the veterinary surgeon held recognized rank in the Roman armies. In modern Europe, as I have already said, the profession is honored and respected, and you are called upon to see that in this country its high reputation is maintained. Upon you rests the responsibility of educating the community to the great importance of these things. To do that you must first be educated yourself—educated to the baptismal sense of the dignity and importance of your profession, and this shall come to you all, and to the community in which you may reside when you deal with your business on a high professional plane. Thomas Arnold says that a teacher should be first a Christian; second a gentleman; third a scholar. If this ideal is in any sense realized, the horse doctor will no longer bear a stigma, but he will soon be recognized as the protector of the health of the community and the conservator of its invested wealth.

And not only a high purpose and an honorable ambition are essential to success, but I also beg to remind you of the necessity of assiduous continuance of your studies for which your work in the College has laid a substantial foundation. In many senses, knowledge is power, and in your case it is especially so if you would overcome prejudice and establish a new order of things, and create throughout the country a new and respected profession—a profession that deserves more credit than it has heretofore received, but which, in my judgment, awaits it by honest hard work, high intelligence and worthy ambition. Remember that there is no such thing as genius. Hogarth says that “genius is nothing but labor and diligence” Lend your influence to the establishment and endowment of veterinary departments in our universities, colleges and veterinary schools. Your President and the Faculty have maintained, single-handed, in this city a school of a high order, and they have borne the burden too long already. See to it that they have needed support by additional funds and by added facilities in order that they may meet the growing demands which the increased number of pupils and the lengthened term requires. And not only here, but wherever your lot may be cast, be vigilant that the proper encouragement is given to the upbuilding of a popular sentiment in favor of veterinary culture. Secure, if possible, substantial gifts of money and influence for its growth, and, above all, do not forget that your profession is in very truth a profession which implies, in all your relations, gentle courtesy, forbearance and a demeanor that knows no reproach. Finally, remember that the reward of a thing well done is to have done it.

In Athenian sculpture is the continued appearance and reappearance of the weird figure of the Centaur. It is a startling picture, half man, half horse. To most people it seems a crude creation—the result of an idle fancy—a kind of barbaric phantasm; but scholars know that Grecian Mythology and Grecian Art are too profound to admit of such a solution. Its grand lesson of the mutual dependence, the mutual fealty and the mutual obligations between man and

his nearest and best friend, tells more than volumes what our duties are and what our relations are. The peculiar and further fact is that a descendant of this fabled race, Chiron, was claimed to be the founder of medicine and the teacher of Esculapius. A strange fable you will say—weird, unique and unaccounted for; but as it moves down through the ages, embodied in stone, in picture and in song, it shall tell you and me of the great blessing which the Arab sought and found, and also of our own great personal duty to care for and protect him.

One gracious fact emerges from a conscientious discharge of your duties, and that is that there is underlying all the movements of time and society a progress towards something better and nobler and truer in our lives.

In all material things, the pulse and pace of the world has been marvellously quickened. Manufactures, travel, electricity, and all the other concrete forms of progress are well known. In 1847 it took eight months to go from New York to Oregon. Now one goes in six days. When the battle of Waterloo was fought all haste delivered the announcement in London in three days, but the news of the battle of Gettysburg was known in London in three minutes. In the beginning of the century the human hand performed all the work that was done. Now the human hand unaided does nothing. If such progress, however, was all that we could boast of, we might well despair, and we have reason to thank God that it is not all. Greater and far nobler is the progress that has been made for humanity--shall I not say the humanities--benevolence, kindness, tenderness and all the nobler charities. In the last fifty years we have been making a grand fight for the humane side of life, and prominent, and above all, stands the conscientious care we are giving to dumb animals and helpless children. There is no grander evidence to-day of the real progress of modern civilization than the movement of this beneficent principle.

You, gentlemen, may thank your good fortune that you can participate in this worthy conflict for justice and kindly treatment to the helpless creatures that serve you. My last

and parting advice to you is to agitate, agitate, and continue to agitate this great question until victory comes, as come it surely will, for, as an old writer says, "Truth is like a torch; the more it's shook, the more it shines."

The genius of humanity, believe me, is moving in right lines. As an able writer has said: "The destiny of organized nature is amelioration, and who can tell its limits. It is for man to tame the chaos; on every side whilst he lives to scatter the seed of science and of song, that climate, animals and men may be milder, and the germs of love and benefit may be multiplied."

"Man is his own star; and the soul that can
Render an honest and a perfect man,
Commands all light, all influence, all faith:
Nothing to him falls early or too late.
Our acts our angels are, or good or ill,
Our fatal shadows that walk by us still."

In this grand march of events you, gentlemen of the graduating class, have a very serious and a very important task to perform, unique in its character, noble in its purposes, and grand in its results.

May it be by you honestly and conscientiously performed.

CASTRATION OF CRYPTORCHIDS.

By PROFESSOR F. MAURI, of the Veterinary School of Toulouse, France.

(Continued from page 9.)

PREPARATION FOR THE OPERATION.

As in all operations of fashion, so called, or such as are not necessarily urgent, or of absolute necessity, the rule is imperative which forbids its performance on animals whose state of health is not perfect. A strong, well-fed horse, in good condition, enjoys almost perfect immunity from septicemic accidents, and requires only the simplest care for the prevention of all surgical complications. Every surgeon is aware of the surprises which he is likely to encounter in

operating upon an organism already under the influence of a morbid predisposition, whatever its nature may be. The accidents consecutive to castration are principally encountered in debilitated animals, or those which are under the influence of distemper, or other communicable affections, such as typhoid fever, even under the most benignant form. The pyogenic tendency inherent in the special constitution of the horse is evidently increased under such conditions, as are, also, as a consequence, the chances of septicemic accidents. We do not ignore the fact that a few years ago the too exclusive adepts of microby had cast a doubt upon the theory of this serious tendency in horses, and were inclined to overlook the wounded, and confine their attention exclusively to the wound and its microbes, as alone necessitating antiseptic precautions. For example, in a moment of enthusiasm, a celebrated bacteriologist once went so far as to declare publicly that "Equine pyogeny was dead." But I am convinced that this celebrated clinician would not to-day pronounce such a dictum in so confident a manner, nor affirm that old practitioners are in error in attributing a special susceptibility to the serous membrane of solipeds.

The horse suppurates very easily, or if the phrase is preferable, possesses a peculiar receptivity for the micro-organisms of pus. The most vigorous antiseptic methods are very commonly powerless to obtain a cicatrization by first intention, such as may be so readily secured in other species of animals.

An open serous membrane in the horse becomes inflamed with the most despairing facility. These are undeniable facts, based on clinical observations, as well as proved by experiments. However their existence may be explained, they must not be overlooked, and cryptoid patients are not to be operated upon at random; the surgeon must be sure of its healthy condition, unless he is working to assume all the chances of a bad case and a bad result.

A question of great interest from a practical point of view here presents itself. Is it possible to diminish by internal medication, the disposition of solipeds for the development of the

septic micro-organisms by internal medication? Mr. Degive answers in the affirmative, saying "Before performing the castration of a ridgling, I prescribe the following preparatory regimen: good straw, unlimited; four to five kilograms of oats a day; slightly saline water to drink; a tablespoonful three times a day of a mixture of three hundred grams of tincture of arnica, and fifty grams of crystallized phenic acid. This regimen is observed for five or six days, with absolute diet on the day of the operation."

Several of his colleagues, and among them Mr. Jacoulet, adhere to the opinion that the previous medical operation is altogether useless. Mr. J. has both given and omitted the tincture of arnica, without any changes in the febrile reaction in his patients.

"I am somewhat surprised," says Mr. Degive, "to see such appreciation of a preparation which I considered of serious importance. I can admit that a healthy patient, free from any morbid predisposition, and placed in the best hygienic condition, may be successfully operated upon without the slightest preparation. But who can be certain that all animals will possess such satisfactory conditions, especially those that are first seen only at the moment of the operation?"

To obviate the many objections which may present themselves, either in the constitution of the patient, or in the hygienic agencies to which he has been exposed, I think it prudent to avoid any measures which may prove to be of a seriously objectionable nature, such as feeding with all kinds of food indiscriminately, and also to administer agents which are likely to diminish the receptivity of the organism for the development of germs, or of such factors as are essential to the inflammatory and febrile phenomena, which are likely to occur after all bloody and delicate operations.

Tincture of arnica and phenic acid have seemed to me to possess this preventive effect, and to their action I attribute the ordinary absence of all febrile symptoms in patients on which I operate. It is only in very exceptional cases that I have observed what Mr. Jacoulet refers to, as a rule, in the appearance of a severe fever, with great depression, reaching

its maximum by the evening of the day after the operation, and lasting for several days.

As can be seen, Mr. Degive is thoroughly convinced that by the administration of salted drinks, arnica and phenic acid, an internal asepsia is produced, which is favorable to the sequelæ of the operation. *A priori*, it seems difficult to admit that a microbic substance which impregnates the organism to such an extent as to prevent the entrance and assimilation of micro-organisms, should remain innocuous as respects the anatomical elements, and one may fear that the proverb "one shoots at the microbe and strikes the patient," may prove correct. But in view of the favorable and important results already obtained, the hope is a legitimate one that science will soon discover some remedial agents which, while harmless to animal cells, will yet prevent the development of septic elements in the organism. Indeed, we see already that mercury cures syphilis, quinine stops paludean fever, salicylate of soda jugulates climatistmal affections. Still, in the actual state of science, this special question remains yet in the domain of empiricism.

In about a dozen cases of castration of cryptorchids upon which I have operated, I have entirely ignored any preparatory medication, and yet in every case the operation has been most successful, and the sequelæ favorable; none have presented the slightest febrile symptoms. They were performed in very different hygienic conditions: seven were treated in the hospital of the school, and were retained until entirely recovered; three on the farm of their owners, and one with a double cryptorchidie, in the barracks of the regiment to which he belonged. In none of them did I observe "the severe fever and great depression, reaching its maximum on the evening of the next day," as described by Mr. Jacoulet.

These facts have justified me in adopting an opinion varying from that of Mr. Degive, as to the advantage to be gained by the administration of arnica and phenic acid.

The only preparation to which we have subjected our patients is the following: Half diet (straw and mashes) for three or four days previous to, and absolute diet on the day

of the operation, the administration of an enema a short time before casting the animal. With these simple preparative measures, of easy application, we have looked only for a single, and what may be termed a mechanical result, to wit, the depletion of the digestive tract, which necessarily facilitates considerably the manipulation of the operation.

(To be continued).

AZOTURIA.

By DR. DAVENPORT, V.S.

(A paper read before the California State Veterinary Medical Association).

Mr. President and Gentlemen :

I will endeavor to describe to you a disease as it has come under my notice, a disease that is well known to the profession, one also that is of great importance to the horse owner, as it invariably attacks well-conditioned and valuable mares, and sometimes geldings, viz., "azoturia." The name is very significant of the state of affairs in this disease, nitrogenous urini. It has been described by various authors under different names, such as hysteria hemæturia and strain of psoæ muscles, etc. All descriptions of such diseases appearing identical to the disease azoturia.

SYMPTOMS.—The attack comes on very suddenly, generally after the animal has been standing in the stable for a few days, the time of year seeming to have an effect upon it, it appearing to be more frequent during the fall and spring months, I presume due to the farmers endeavoring to put on flesh on their horses after working them down or saving them for the spring season, feeding them on a high and nutritious diet without proper exercise; the bowels are costive, and nervous excitability is very marked; there is more or less paralysis of motor power of hind extremities, sometimes attacking both hind limbs, others only one, generally as far as I have noticed the near hind; profuse perspirations; visible mucous membranes injected, of a brown tinge upon passing the catheter, which I always find necessary and safer,

even if the attendant should tell me that the animal had mic-turated all right a short time before my arrival; the characteristic dark coffee-colored urine of a syrupy consistency; the gluteal region hard and swollen; the pulse is more or less accelerated, due to the excessive exertions of the animal endeavoring to gain its feet fruitlessly; sometimes the swelling and paralysis of the muscles is situated in the scapular region, tense and hard, similar to when situated in the gluteal, with great difficulty in moving the forward extremities. I may mention here that this disease is sometimes mistaken by owners of horses for dislocations of one of the hind limbs; to verify this I will describe a case that came under my notice a few months ago: I was called through the telephone to go to Healdsburg, sixteen miles from Santa Rosa, to a mare, the owner desiring me to bring all necessary tackle to return a dislocated thigh. I must confess upon receiving such message I was rather puzzled just how to act; nevertheless I took, as far as I could imagine, what I should require in such a lesion. Upon my arrival I found a large bay mare down in her stall, pulse 60° F., respirations slightly increased, and she had evidently been sweating profusely; she was able to rise, when she showed great lameness in the near hind leg; the appearance of the whole of the near side of the hind extremity was as though the hip had been knocked down; she could use it quite briskly, so I came to the conclusion that there was no dislocation or fracture. Upon inquiry I found she had been suddenly taken that way the day before, I then suspected azoturia; upon passing the catheter I found the bladder empty, but got sufficient urine to tell the character of same, which was of a dark coffee color, whereupon I had no hesitation in pronouncing it azoturia; the owner and teamsters were very much surprised when I told them there was no dislocation; the animal has since made a good recovery; has a rather bad lameness and atrophy of the external muscles of the thigh. It is also not a very hard matter for members of the profession to mistake this disease for a sudden seizure of colic, acute rheumatism, and excessive strain of muscles of hind extremities if great care be not taken in a mi-

nute examination, that is when there is no marked discoloration of the urine, as is sometimes the case.

Azoturia is described by various authors as affecting geldings only; others mares only; some saying that it affects mares only during the period of *œstrum* but I must say that, as far as my experience goes, it affects both mares and geldings at all periods, but more frequently mares. Since I have been practicing in Santa Rosa, a little over three years, I have treated a great number of mares for azoturia. Out of about sixty cases, I have had only eight or ten geldings, three only living, it appearing to be more fatal in geldings than mares, for what reason I am unable to account; some breeds of horses seem more liable to it than others. Round the vicinity of Santa Rosa there are a great number of Norman draft-horses and farm animals, and I may add that nearly all of those that I have treated in this disease are full-blooded or half Normans. In fact I have heard a great many farmers remark that they would not have a Norman on the place on account of their being so liable to go wrong in their waterworks, as they describe it. Whether there is anything in hereditary predisposition or not I do not know, but from what I have seen and heard I am inclined to think there is.

The diet, of course, has a great part to play in this affection, as it appears to affect only those that are highly fed and properly exercised. I cannot remember seeing it in a poor horse. It appears to be more prevalent in this State (California) than in any other part I know or have heard of, I presume on account of so much wheat and barley hay that is put up and fed, it appearing to be too nutritious for the equine requirements.

The English authorities speak of azoturia as being rather rare in that country; possibly this is due to their not feeding foods so rich in albuminoids, such as barley and wheat, etc. Professor Law, F.R.C.V.S., says in one of his papers on diseases of the urinary organs, that, like diabetes, this is rather a disease of the liver and blood-forming functions than of the kidneys. It is a complex affection directly connected with a plethora in the blood of nitrogenized constituents. He also

goes on to say : It seems as through the aspiratory power of the chest under the increased exertion and accelerated breathing speedily draws from the gorged liver and abdominal veins (portal) the accumulated store of nitrogenous matter in an imperfectly oxidized or elaborated condition, and as if the blood surcharged with these materials was unable to maintain the healthy function of the nerve centers and muscles. A peculiar anatomical feature of the horse's liver doubtless contributes to this, viz., the persistence throughout life of several considerable veins leading directly from the veins of the stomach and intestines into the posterior vena cava and heart. This condition, common to foetal mammals, persists through life in solipeds only among our domesticated animals ; in all others the portal vein has no communication with the vena cava except through the capillaries of the liver. With the direct channel, the rich, crude blood coming from the intestines is drawn at once into the general circulation, unchanged by the secretions in the liver and the chemical changes therein affected. Hence this disease is peculiar to solipeds ; it has been noticed rather more frequently in mares than in horses, attributable, perhaps, to the nervous excitement attendant on heat, and to the fact that the unmutilated mare is naturally more excitable than the docile gelding.

The exact nature of this disease is imperfectly understood, although a good many solutions have been advanced for years. There is no inflammation of the kidneys, no specific organisms are charged with its production ; the condition of the urine throws some light upon its pathology ; the color of the urine would seem to a casual observer as though it contained blood, but it has been well established that such is not the case. Law says the color is due to hæmoglobin and other imperfectly elaborated constituents of the blood. It is scanty in quantity ; the specific gravity is not much altered ; it retains its normal alkalinity, but invariably it contains albumen from the first, which gradually diminishes toward the third or fourth day ; it also contains a great excess of urea, and occasionally traces of sugar.

With regard to the treatment of the disease there is very

little to be said ; the principal rule is to keep the various excretory organs open, and to keep the animal as quiet as possible ; generally after the primary perspiration a shivering fit sets in ; in such a case the animal should be well clothed, and hot blankets (not wet, on account of the usual carelessness of the attendants allowing the water to run on to the bedding and wetting it, thereby causing very bad sores to form on the animal, the bedding should be kept as dry as possible on this account)—should be applied to back and loins, which will greatly relieve the cramped muscles. A great many recommend slings if the animal is able to stand at all, but my experience is that it is not a good plan to use them, as they invariably fight and plunge round in them so ; the best plan is to keep the animal turning from side to side every few hours, and not any efforts made to get it on its feet for three or four days, when if the disease is terminating favorably the animal with a little assistance, say two or three men each side to balance him, will generally rise and stand for a little while, and so on till the animal is able to stand alone.

In medical treatment I generally differ a little from the general outline of treatment set down. Authorities do not recommend aloes on account of it being secreted by the kidneys, but as it is one of the great things to get the bowels in good action as quickly as possible, I give large doses of aloin, say three to four drachms, combined with a little ginger and whiskey, and I must say I have had good results ; also copious warm water enemas should be given every few hours, as they greatly assist in promoting the action of the torpid bowels, they also relieve the muscular cramps to a large extent. One other great remedy I have found in the treatment of this disease is the hyposulphite of sodæ. It was recommended in this complaint by Dr. Shepherd in his paper on "Hyposulphite of Sodæ" in the *Journal of Comparative Medicine and Archives*. It seems to have a great effect in clearing up the urine after the first two or three doses, its change to a clearer color being very marked. I also give, if there is great pain and distress from the onset, small doses, hypodermically, of morphine, say two grains, according to the size of

the horse, which has the good effect of keeping them quiet without causing constipation to any extent.

The *diet* should consist of easily digested and not too nutritious food (as the idea is to remove the cause and the disease will cease), such as green grass, when procurable, warm bran mashes and thin gruel; and I have had no bad results from allowing them to have a liberal supply of cold water to drink. After convalescence has set in, tonics, and I should especially mention nux vomica, it assisting to tone the greatly debilitated muscular system; exercise should be given in moderation and gradually, and an animal that has once been attacked with this disease should not be allowed to stand in the stall any length of time. With regard to the hyposulphite of sodæ I should like to make a few remarks. Dr. Shepherd in his paper says: "And again in azoturia, although my experience is here limited, I am becoming more and more convinced that it is worthy of a more thorough trial. Undoubtedly the whole line of symptoms in this disease is caused by the action of poisonous products upon their nerves and their centers."

Thus through the condition of the blood we are sure to get our several results. Urea is one of the natural constituents of the urine excreted from the blood by the kidneys. In this disease immense quantities of it are excreted, showing an unnatural action of the kidneys, or an inestimable quantity of it in the blood, which, from its nitrogenous character, is without doubt. The hyposulphite of soda acts directly to diminish urea and increase uric acid, the sulphates, sugar and other non-nitrogenous constituents, a condition certainly necessary to the recovery of the patient.

PROGNOSIS.—The prognosis is favorable in the majority of cases, especially if the veterinarian should treat the patient shortly after being first taken down. Finlay Dun gives the recoveries at about fifty to eighty per cent., and according to my experience the recoveries have fully reached eighty per cent.

With regard to post-mortem appearances, I have never made one on such a case, and I can only quote Professor Williams. He says: "Post-mortem examination reveals the blood

dark-colored, having an ammoniacal smell, and semi-fluid congestion of lungs, clots of dark blood on both sides of the heart; the bladder filled with dark coffee-colored urine, and sometimes softening of the liver and kidney."

Congestion of the sheaths of the great gluteal nerves has been present in some cases in which the spinal cord at the lumbar region has been found red, congested and softened, but in others these appearances have been absent, the spasm and the loss of power being due to the effect of the altered blood on the muscular tissue.

Thanking you, Mr. President and gentlemen, for your kind attention, I trust you will make all due allowances for discrepancies and errors, only hoping that I have advanced some new idea in the pathology and treatment of this important disease.

Bibliography.—Professor Williams's "Veterinary Medicines"; Dr. Shepherd on "Hyposulphite of Sodæ," and Finlay Dunn.

REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."—VETERINARY RECORD.

ENTERO-PERITONITIS DUE TO ASCARIS MEGALOCEPHALA.

By CLARENCE MILLS, V.S., Mt. Palatine, Ill.

I herewith send a report of a case which proved quite interesting to me, and although I have reason to believe that such cases in a milder form may not be *very* rare, yet it surpassed anything of its nature I have witnessed in a post-mortem. If you think it worthy, you may publish it.

The case was one of entero-peritonitis, induced primarily by the presence, in a large section of the small intestine, of multitudes of the parasites, ascaris megaloccephala. The history of the case, as I got it from the owner, was as follows:

The patient was a ten-months-old standard bred filly,

and very promising. She was allowed her freedom in a small pasture in the daytime, and at night was housed in a warm box-stall and fed what grain she would eat up by morning, as she had been used to do since she was old enough to eat grain.

On the evening of the 29th the colt was treated as usual, and was to all appearances well as usual. The owner had noticed, however, for some little time that the colt was not in as good condition as it should be from the feed and care he was giving it, but noticed nothing about her to cause him to suspicion any trouble.

Upon going to the stable upon the morning of the 30th he found this favorite colt sick. From appearances he judged it to be colic or something of that nature, and thought it would soon recover. He gave her some medicine which he had, and thought it would do her some good, but did nothing except to relieve the pain for a short time. Colt would at times throw itself violently and evince severe pain, get up and lie down and roll; threw itself so violently at times that it was dangerous to its own life, and required some one to watch her all the time. Thinking still that it might not be so very serious, and having no help, the owner did not send for medical aid until about two o'clock in the afternoon, when I was sent for, but was away at the time the messenger arrived visiting another patient, and did not arrive in answer to the call until 4 P.M., when upon entering the stall I found the patient lying prostrate upon the floor apparently lifeless. Upon closer examination I found that life was not extinct, but that death would very soon result. The only chance being to administer a stimulant immediately, and try to prolong life until the patient could be examined and ailment ascertained. Such was prepared at once, although with no hope of being effectual, but was not administered, as by the time it could be prepared for administration the colt was dead. She had not made a struggle, and breathed but twice after I entered the stable. On this account I was unable to get but very little information from personal observation, but from what I could learn from owner I diagnosed the trouble as

enteritis with probable peritonitis. Permission was obtained for a post-mortem examination immediately, with the following results:

Upon opening into the abdominal cavity a large quantity of fluid was present, showing evidence that ascites had existed, for a few days at least, before death. The peritoneum was very much inflamed, and many parts of the intestines, both large and small, showed evidence of severe inflammation, and the remainder badly congested. Two or three large worms were noticed immediately upon the outer surface of the small intestines, and at first thought perhaps the knife had accidentally touched an intestine sufficiently when opening the colt to open it and the lumbracoid had come out in that way while I was engaged in examining other parts. But examination proved this not to be the case.

Pushing the intestines aside I soon came across particles of corn, oats, hay and other food particles. Now I looked for a rupture. Following the duodenum from the stomach backward, I finally came to a small rupture about large enough to admit one's little finger, through which the food and parasites had found their way. On either side of this aperture for several feet there were parasites by the hundreds, singly and matted together. The largest of these rolls of parasites was located about six inches below the aperture. It was a very large roll of *ascaris megalocephala* from five to nine inches in length completely filling the canal. The rupture in the intestine had, as near as could be judged, occurred at least ten days before, as its edges were thickened and healed over, leaving the round aperture. But little food was found in the small intestine and not a great deal in the large ones. The stomach, however, was full to the extent of its capacity, and fermentation of this food had to some extent taken place.

Other cases have come under my notice during my three years' practice, upon which, I am sorry to say, I could not hold a post-mortem, owing to distance at the time of death. I am fully convinced that death has been produced by these parasites inducing enteritis, and, as in the above, peritonitis also.

Cases have also come under my notice very frequently of serious trouble and death from *strongylus tetracanthum*, but as that is well treated in an article in the January REVIEW I will say nothing in regard to them at this time.

CONSTRICTION OF THE RECTUM.

(Reported to the Maryland Veterinary Medical Association, by W. H. Martenet, D.V.S., Philadelphia, Pa.)

The subject was an aged bay horse which I was called to see on the 18th of January, 1893. I found him presenting the ordinary symptoms of constipation, constant stretching, anorexia, dullness and visible evidence of the passage of but little or no fæces.

Treatment was recommended and given in the administration of a liberal dose of linseed oil, followed by mild doses of tincture of *nux. vomica*. Clysters of warm water, twice daily, were ordered with the admonition to exercise care in introducing the nozzle of the syringe into the rectum.

I saw the patient on January 23d, and was told that he had done better for a day or two after I had first seen him, but was now straining worse than before, and, according to the owner's statement, passed very small quantities of urine at frequent intervals. Noticing this condition myself, he was put on diuretic treatment. The owner visited me in a day or two, and informed me that no improvement was noticeable in the animal.

I visited him again on the 28th, and found him weaker than before, from having taken but little nourishment, and constantly stretching and straining at ineffectual efforts to void fæces.

Having determined to make a rectal examination, on introducing the hand into the rectum found it could be passed but about six inches from the anus. The obstruction consisted of a fibrous constriction occluding the rectum to such an extent that only two fingers could be passed through it, and then but with much difficulty. The constriction was very firm, but the mucous membrane toward the anus was

granular and bleeding easily from the manipulation. A fetid, sanious discharge, small in amount, exuded from the anus, which was swollen, and its mucous membrane highly congested. The animal was ordered to be destroyed. Was this condition the result of violence in introducing the syringe, or was it a pathological condition "per se"?

The necessity of an early examination of the rectum where there is the least indication for it is obvious.

SOCIETY MEETINGS.

PENNSYLVANIA STATE VETERINARY MEDICAL ASSOCIATION.

The ninth annual meeting of the Pennsylvania State Veterinary Medical Association was called to order at 10:30 A.M. at the Hall of the College of Physicians, 13th and Locust streets, Philadelphia, Pa., President Hoskins in the chair. On roll call thirty-six members were present.

As visitors, Dr. John Marshall, Dean of Veterinary Department University of Pennsylvania, Dr. W. B. Atkinson of State Board of Health, Dr. Jas. McAnulty, Dr. John Adams, Dr. E. Mayhew Michener, Dr. Wm. J. Hinds, Dr. M. E. Conard, Dr. W. H. Fry, Dr. W. B. E. Miller and a number of students of the Veterinary Department University of Pennsylvania.

The minutes of the semi-annual meeting were read and with a slight correction adopted.

The President's address followed, reviewing the work of the Association for the past nine years and congratulating the members on the volume of work performed, the high place attained and the bright promises of the future for the Association.

The election of offices resulted in the election of President W. Horace Hoskins; 1st Vice-President, Dr. Leonard Pearson; 2d Vice-President, Dr. Jas. B. Rayner; 3d Vice-President, Dr. Zeno S. Keil; Recording Secretary, Dr. Robert Gladfelter; Corresponding Secretary, W. H. Ridge, Treasurer, Dr. John R. Hart.

Board of Trustees: Drs. S. J. J. Harger, Jas. Sallade, J. C. Michener, W. S. Kooker, Leonard Pearson.

The following list of applicants was then read and referred to the Board of Trustees:

B. S. J. Bear, V.M.D., Vet. Dept. University of Pennsylvania, York, Pa.; Voucher, W. H. Ridge; A. O. Cawley, D.V.S., Am. Vet. College, Milton, Pa.; Voucher, W. H. Ridge.; M. E. Conard, V.M.D., Vet. Dept. University of Pennsylvania, West Grove, Pa.; Voucher, W. H. Ridge; Chas. M. Cullen, V.M.D., Vet. Dept. University of Pennsylvania, 4317 Lancaster Ave., Phila., Pa.; Voucher, W. H. Ridge; Chas. A. Dohan, V.D.M. Vet. Dept. University of Pennsylvania Darling, Delaware Co.; Voucher W. H. Ridge; R. A. Dunn, D.V.S., Am. Vet. College, Titusville, Pa.; Voucher, W. H. Ridge; Harry D. Entrekinn, V.M.D., University of Pennsylvania, Kennett Square, Pa.; Voucher, W. H. Ridge; R. J. Fox, V.S., N. Y. College, Bryn Mawr, Pa.; Voucher, W. L. Nunan; W. H. Fry, V.S., Pine Grove Mills, Pa.; Guildin Hartman, V.M.D., Vet. Dept. University of Pennsylvania, 2130 North 4th St., Phila., Pa.; Vouchers, W. H. Ridge, John R. Hart; J. Heckenberger, V.S., Ont. Catasaqua, Pa.; Vouchers, W. H. Ridge, J. C. Foelker; Wm. A. Heckenberger, V.S., Ont. Catasaqua, Pa.; Vouchers, J. C. Foelker, W. S. Kooker; Joseph Houldsworth, V.M.D., Vet. Dept. University of Pennsylvania, Phila. Pa.; Voucher, W. H. Ridge; F. M. Kain, D.V.S., Am. Vet. College, York, York Co., Pa.; Voucher, W. H. Ridge; Horace P. Keely, V.M.D., Vet. Dept. University Pennsylvania, Schwenksville, Pa.; Voucher, W. H. Ridge; S. D. Larzalere, V.M.D. Vet. Dept. Univ. of Pa., Jenkintown, Pa.; Voucher, W. H. Ridge; C. Lintz, V.M.D., Vet. Dept. Univ. of Pennsylvania, Chester, Pa.; Voucher, W. H. Ridge; Jas. T. McAnulty, V.S., Phila., Pa.; Voucher, W. Horace Hoskins; F. J. McCarthy, V.S., Ont. Pottsville, Pa.; Voucher, J. W. Sallade; John J. Maher, V.M.D., Vet. Dept. University of Pennsylvania, 1514 Marshall St., Phila., Pa.; Voucher, W. H. Ridge; David Martin, V.S., McKeesport, Pa.; Voucher, Jas. A. Waugh; E. Mayhew Michener, V.M.D., Vet. Dept. University of Pennsylvania,

Colmar, Pa.; Voucher, W. H. Ridge; W. B. E. Miller, D.V.S., Am. Vet. College, Phila., Pa.; Vouchers, W. Horace Hoskins, Thos. B. Rayner; Frank L. Smith, V.M.D., Vet. Dept. University of Pennsylvania, 2027 North 13th St., Phila.; Pa.; Vouchers, John R. Hart, W. H. Ridge; Geo. A. Smith, V.M.D., Vet. Dept. University of Pennsylvania, 16th and Bainbridge Sts., Phila., Pa.; Vouchers, W. H. Ridge, Leonard Pearson; Wm. J. Tomlinson, D.V.S., Am. Vet. College, Williamsport, Pa.; Vouchers, W. Horace Hoskins, Robt. Gladfelter.

A recess was then taken that the Board of Trustees might convene to examine the applicants.

On re-convening the Board recommended for favorable action Drs. Dunn, Bear, Geo. A. Smith, Michener, Dohan, Cullen, Maher, Conard, Keely, J. Heckenberger, Entrekin, Larzalere, Lintz, Kain, Frank L. Smith, Hartman, Houldsworth, Miller and McCarthy.

The Board unfavorably recommended Drs. Fry, Martin, and McAnulty, and laid over for further consideration the applications of Drs. Tomlinson, Cawley and Fox.

A motion to dispense with the by-laws and elect by acclamation was carried, and those favorably recommended were on motion declared elected.

The President introduced the new members present.

The Secretary's report followed, containing much information relative to the work of the past six months, calling brief attention to the new local Veterinary Society in the Wyoming Valley, and among many other valuable points, jogging the faulty memories of many of the members for their negligence in not replying to and acknowledging communications from the Secretary's office.

The Treasurer's report showed exceedingly heavy expenditures for the year, and though the balance was on the wrong side, a large income from the members had been received, and never in the history of the Association were there so few delinquents as at present.

Under unfinished business the following amendment was adopted:

1st. That on and after the year 1893 the annual dues of this Association shall be two dollars, to be made in semi-annual payments.

2d. Any member in arrears for his initiation fees or dues for a period of eighteen months shall receive two quarterly notices of said arrearage, and in failing to liquidate, the same shall be reported to the Association by the Treasurer for expulsion.

Under the head of new business, after thorough consideration, the Association decided to appoint the following Committees: One for the purpose of aiding the work of the International Association looking after the interests of the members in connection therewith and making arrangements for any members of the Association who proposed to attend the International Meeting. The President appointed on this Committee, Chairman S. J. J. Harger, W. S. Kooker, L. O. Lusson, Alex. Class, Jas. B. Rayner, C. T. Goentner, J. C. Foelker, Robert Formad and J. B. Irons.

The second, Committee on Entertainment of Foreign Delegates who may visit our meeting, and who will be taken charge of during their passage through our State, en route to Chicago, the following members were appointed to serve on this Committee: Chairman, Leonard Pearson, Thos. B. Rayner, W. L. Zuill, W. B. E. Miller, J. Timberman, Jacob Helmar, Jas. A. Waugh, J. C. McNeil, Chas. Schaufler.

Reports of committees being in order, the first one called for being on Legislation, Chairman Kooker reported results of prosecutions at Washington, Pa., under the veterinary act, together with the proposed act to secure a pure, wholesome and unadulterated milk supply, and to provide for licensing milk producers and milk venders, and for the appointment of milk and dairy inspectors in the State, together with several amendments to existing acts pertaining to the milk and meat supply of our commonwealth.

The report of Chairman Weber on Intelligence and Education was one of the most suggestive and important reports that have ever been read before the Association. His criticisms of matters pertaining to the veterinary profession were

the most opportune and caustic, associated with which were many wise suggestions as to the probable means of remedying many of the evils with which we have to deal.

Chairman Harger of the Committee on Sanitary Science and Police presented a brief report, noting many new discoveries, and referring to the present experiments in detecting glanders and tuberculosis, and the growing theory in the contagiousness of tetanus.

The Committee of Arrangements then announced that the Philadelphia veterinarians had procured sufficient seats at the Broad Street Theatre for all those in attendance and were very anxious to have all present. After some minor business the meeting adjourned until 10 A. M. on the following morning.

The second day's session was convened at 10:15 A. M. President Hoskins in the chair. On roll call forty-four members were present.

As visitors, Dr. Wm. Dougherty, Baltimore, Md., of the Maryland State Veterinary Medical Association, Dr. H. P. Eaves, Wilmington, Del., Delegate from Keystone Veterinary Medical Association, Dr. E. O. Shakespeare, late of the City Board of Health, Dr. Jas. McAnulty, Dr. Leo Breisacher, Dr. M. W. Drake, Dr. N. M. Drake and a number of students from Veterinary Department University of Pennsylvania.

The President appointed the following delegates to the various veterinary associations in adjoining States. To the New Jersey State Veterinary Medical Association, Dr. L. O. Lussan, R. G. Webster and Walter R. Hart. To the Veterinary Medical Association of New Jersey, Drs. Jas. B. Rayner, W. S. Kooker, P. M. Minister. To the New York State Veterinary Medical Association, Drs. J. H. Timberman, C. C. McLean, J. B. Irons. To the Maryland State Veterinary Medical Association, Drs. S. E. Weber, W. H. Ridge and Leonard Pearson. To the United States Veterinary Medical Association, Drs. J. C. Foelker, Geo. B. Rayner and John R. Hart.

Under discussion of reports, Dr. E. O. Shakespeare was called upon by the Chair to consider that part of the Legisla-

tive Committee's report, pertaining to milk legislation. He addressed the Association at some length, answering every argument that had been advanced against the proposed law; touching upon the standard of quality as to solids; as to reduction by water and separator slop; the penalties of violation; the question of milk supply and the unfairness of many analyses; the wisdom of allowing the sale of skim milk and many other well taken points; handling them all in an earnest, careful and familiar manner, gratifying and encouraging all who were present. After extending him a cordial vote of thanks for his interest and attendance, the milk bill and proposed amendments to other laws on the food question were unanimously indorsed.

On the discussion of the report of Committee on Intelligence and Education it was on motion approved that a committee of three be appointed to draft suitable resolutions condemning the new two years' school at Washington, and extending congratulations to the American Veterinary College for its adoption of an obligatory three years' course. The Chair appointed the following Committee, Leonard Pearson, S. E. Weber and J. C. Michener. Said Committee subsequently reported the following draft of resolutions:

Whereas, Some of the officers of the Bureau of Animal Industry have established a veterinary school in Washington, which is poorly equipped, and requires but two years' attendance upon instruction, and

Whereas, It is the opinion of this Association that all colleges awarding the degree of Veterinary Surgeon should give a course extending over at least three years, be it

Resolved, That we greatly regret the action of these officers, and feel that they are doing the veterinary profession of this country an injury, and are retarding the progress of veterinary education; be it further

Resolved, That a copy of these resolutions be sent to the Honorable Secretary of Agriculture and to the Chief of the Bureau of Animal Industry.

SECOND RESOLUTION.

Whereas, Certain veterinary colleges have, to their own financial injury, adhered to three year courses of instruction, and others have discarded the old two year course and now require of their students three years' attendance, and

Whereas, It is only through self-sacrifice of this sort that the cause of veterinary education can be advanced; be it

Resolved, That we commend these colleges having a curriculum covering three years, and also the American Veterinary College, which has recently lengthened its course to this standard.

LEONARD PEARSON, }
S. E. WEBER, }
J. C. MICHENER, } *Committee.*

These resolutions were adopted by the Association.

At this point letters of regret were announced from Drs. C. P. Lyman, Isaiah Michener, D. C. Stanton, A. Liautard, C. R. Good, J. C. Foelker, Thos. J. Edge and many others.

Under discussion of the Secretary's report, he was directed to remove from the roll, Dr. C. J. Blank, of Buffalo, on the ground of non-residence, and Dr. J. C. Thompson. Also to procure two hundred copies of constitution and by-laws.

It was further recommended that the Board of Trustees be requested to convene an hour earlier, so that the bulk of business may be disposed of before the regular session convenes.

The Secretary was requested to comply with the desire of Dr. A. H. Dorney, a non-resident, who wished to recall his name.

Under discussion of the Treasurer's report, it was decided to have the following names stricken from the roll: Drs. C. A. Millar, S. K. Hoffman and A. F. Schrieber. Subsequently, on payment of initiation fee and dues, Dr. Schrieber was reinstated.

All bills of Secretary and others were referred to an Auditing Committee, consisting of Thos. Rayner, W. S. Kooker and S. J. J. Harger, after which the Association adjourned for lunch.

The first paper presented to the Association was by Prof. R. S. Huidekoper, of New York City, entitled "Agricultural Shows, Judges and the Veterinarian," which was listened to with most intense interest and edification, and proved to be a paper of exceptional merit, strength and importance, and sug-

gested a new field of labor for the veterinarian to fill that gives great promise of strengthening them as a profession in the eyes of our people throughout the entire country. So carefully and thoroughly was this paper prepared, and so wholly new its character, that its completeness forbid its discussion, and the Association could only most generously thank the author for his kindness in preparing it for the meeting with the desire that our Association should give it the publicity it should command.

The second paper read, by Dr. J. Curtis Michener, on "Open Joints," proved a short, terse article on this topic, specially considering his plan of treatment. The paper was afterward discussed, and many questions asked in regard to the result of the plan of treatment outlined.

This paper was followed by one on "Fungus *Hœmatodes* in Cattle and Horses," by Jas. A. Waugh, who being absent from the meeting the paper was read by the Secretary.

This was followed by a paper on "Acute Toxic Anæmia," with the reports of some animals dying from this cause, by Dr. Jacob Helmar, of Scranton. This paper proved to be one of exceptional interest, and was listened to with a great deal of pleasure. His investigation of his cases had been one of the most thorough character, and the entire history of the development, progress, results and probable origin of the disease was prepared to a state of completeness that won for the author the admiration and approval of all who had the pleasure of listening to his paper.

This paper was followed by one by Dr. Leonard Pearson, continuing the subject of "Tuberculosis," and the results obtained by the use of tuberculin as a diagnostic agent. Some very important and valuable statistics were thus added to what he had placed on record some six months before, and all pointed to the increased evident value of tuberculin for the detection of tuberculosis in the bovine species. He exhibited in conjunction with his paper several specimens that had been obtained from cattle where the symptoms had been peculiarly interesting and somewhat obscure. His paper elicited much interest, and brought forth many inquiries that

exhibited the general interest shown by the veterinarian in the consideration of this important subject.

As a contribution in connection with the paper of Dr. Pearson, Dr. W. B. E. Miller, of the Bureau of Animal Industry, chief examiner of cattle for foreign shipment at the port of Philadelphia, and who with his corps of assistants were continually seeking for evidences of the existence of tuberculosis among the animals slaughtered for consumption as food in Philadelphia, reported the results of these investigations for the past year, which shed much light upon the healthfulness of the beef supply at this center.

This closing the list of papers, the remaining short time was thrown open for reports of cases; one of which, reported by Dr. W. Horace Hoskins, was a case of enormous calculi of both kidneys of a great Danish bitch. The entire structure of one kidney had become entirely broken down, and the walls of the organ greatly distended, had simply become the surrounding of an enormous cyst containing the calculus deposits. The other had still to a certain extent maintained its shape and normal size, but contained within an extremely large deposit. The animal had died from uræmic poisoning, indicated principally by great depression of all the vital forces, profound loss of appetite, great lethargy, but never evincing any evidence of acute pain and suffering.

The place for holding the semi-annual meeting was then brought up, and resulted in the selection of Scranton.

A hearty vote of thanks was then tendered to all those who contributed to the interest and pleasure of the meeting through the papers and reports which had been submitted. The seating of the newly elected officers then took place, and a vote of thanks to the officers for the past year was accorded, after which the meeting adjourned.

ROBT. GLADFELTER, *Sec.*

CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION.

A regular meeting of the California State Veterinary Medical Association held at the Baldwin Hotel, San Francisco, March 8th, 1893.

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The meeting was called to order by the President, Dr. W. F. Egan.

Upon roll call the following gentlemen responded: Drs. Egan, Burns, Spencer, Sr., Spencer, Jr., Wadams, Maclay, Fox, Davenport, Pierce, Lord, Orvis, Neif and Archibald. Visitor, Dr. Ruth.

Minutes of the previous meeting were read and approved.

Dr. Maclay's resignation was then read and discussed. Upon motion by Dr. Burns it was not accepted.

Letters of regret were read from absent members.

Under the head of admission of new members the Secretary moved that Dr. Rowland Lord, M.R.C.V.S. (L.), and Dr. W. Carmichael, V.S. (Toronto), be elected members of the Association. Carried.

The reading of papers and discussions brought Dr. Davenport on his feet with an excellent paper on "Azoturia."

The essayist portrayed very vividly the different pathological changes which an animal affected with the disease undergoes. He described his mode of treating the same; he also cited the different aspects which the disease had presented to him.

The paper was followed by a very lengthy discussion. In regard to the treatment there seemed to be a great diversity of opinion. Some favored cathartics, others condemned them; some favored slings, others never used them; but the unanimous opinion seemed to be that the most beneficial treatment of azoturia is good nursing and hot packs to the congested muscles, and the administration of a mild diuretic.

Dr. Neif brought up the subject matter of sanitary regulations in San Francisco and other large cities. The matter was discussed by most of the members present, and upon motion of Dr. Spencer, Sr., the chair appointed Drs. Maclay and Neif to prepare papers on the subject to be read at next meeting.

The members requested Dr. Neif to invite some of the San Francisco Board of Health to be present at the next meeting. The subject matter of legislation was brought up and discussed for a short time by Dr. Maclay. On motion a vote

of thanks was given the essayist for the able manner in which he had entertained the meeting.

On motion the meeting adjourned to meet in San Francisco, June 14th, 1893.

R. A. ARCHIBALD, *Sec.*

KANSAS VETERINARY MEDICAL ASSOCIATION.

The Kansas Veterinary Medical Association met at Manhattan, March 9th, 1893. The afternoon was spent visiting the State Agricultural College.

The meeting was called to order by President Pritchard. The minutes of the former meeting were read and approved. Drs. Young and LeMay signed the Constitution. Communications were read from Drs. Hunter, Wattles and Nott expressing regrets at being unable to attend the meeting.

Dr. Wattles reported an interesting case of an "equine hermaphrodite." Dr. Wattles also extended an invitation to attend the commencement of Kansas City Veterinary College.

Dr. LeMay gave an interesting talk on the treatment of gunshot wounds in horses, having had considerable experience while at Pine Ridge with his regiment (Seventh Cavalry). He found the most successful method was to treat the wound antiseptically locally, and wait until the ball becomes encysted, or set up suppuration, when it can be removed.

Dr. Welch, of Salina, reported an interesting case of artificial impregnation of a mare. The semen was caught in a receptacle mixed with warm milk, and by means of a small rubber tube and funnel was forced into the uterus. The mare was impregnated.

The treatment of hernia was also discussed thoroughly. Neurotomy was also discussed. The general expression was that the low operation, performed standing, was usually successful, no bad results following. Tenotomy, bulging soles, Dempsey pads and rubber tired shoes were also discussed.

Under the head of unfinished business the fee bill was brought up, amended and adopted as a general guide to equalize charges throughout the State, and for the general information of the practitioner and his client. The amended fee bill was ordered printed for the use of the members. Dr.

S. C. Orr's resignation as a member of the Association was taken from the table and accepted.

The Association then adjourned to meet at Topeka the Thursday evening of State Fair week, Oct., 1893.

N. S. MAYO, *Sec.*

ALUMNI ASSOCIATION OF THE AMERICAN VETERINARY
COLLEGE.

The sixteenth annual meeting was held in the lecture-room of the college on March 24th, 1893. There were twenty-two graduates of previous years present at the meeting. The class of '93, numbering fifty-two, were then elected to membership, making a total number of 489 members in the Association. The new class was welcomed by President Dr. Ryder, and introduced to the members present.

Treasurer's report showed a large balance, proving the Association had prospered during the last year.

Ten very interesting communications were read from resident State secretaries of as many States, among them being one from Dr. Wray, Chief United States Veterinary Inspector for Great Britain.

The alumni trustees reported progress on the subject of a new college building, stating that the "building fund" was rapidly accumulating, and that they hoped ere long to have a college building worthy of this great city of New York.

Resolutions read on deaths of Drs. Campbell, Kidd and Apeldorn, were ordered engrossed on the minute book.

Whereas, Almighty Providence has seen fit to remove from our midst our associate member, Dr. Theodore W. Apeldorn, a graduate of the class of 1887,

Resolved, That we, the members of the Alumni Association of the American Veterinary College, regret his early loss as a member of the profession and the cutting short of a career that held forth much promise; and be it further

Resolved, That a copy of these resolutions be spread upon the records of our Association, and the same be published in the AMERICAN VETERINARY REVIEW.

F. J. ALLEN,
WALTER L. HART,
W. HORACE HOSKINS, } *Committee.*

Whereas, In the death of Dr. Edward T. Campbell, it has

pleased the Almighty to remove from our midst a worthy and esteemed friend; be it

Resolved, That by his death the class of 1889 loses a promising man and the veterinary profession a friend and valued member; be it

Resolved, That, with deep sympathy with the relatives and friends, we express an earnest hope that even so great a bereavement may be overruled for their highest good; therefore

Resolved, That a copy be engrossed in the minute book, and also published in the REVIEW.

H. D. HANSON,
WM. HERBERT LOWE, } *Committee.*
E. B. ACKERMAN,

Whereas, This Association, as well as the veterinary profession of Kentucky, has lost by death in the person of Dr. James L. Kidd a worthy and valued member;

Whereas, It is fitting that we, as a corporate body, should express and record the esteem in which he was held by us, and the loss we sustain in his death. Therefore be it

Resolved, That in the death of our brother the profession has lost a valued member, and many of us a personal friend, who did much during his professional career to promote fraternal feeling among practitioners; and be it further

Resolved, That these resolutions be spread in full upon the minutes of the Association as a token of the regard in which he was held by us.

WM. HERBERT LOWE, } *Committee.*
E. B. ACKERMAN,
H. D. HANSON,

Resolutions were read by Dr. Hoskins, congratulating the authorities upon the new three year course inaugurated by the American Veterinary College.

The following officers were elected for the ensuing year: President, W. H. Lowe, D.V.S.; Vice-President, H. D. Hanson, D.V.S.; Secretary, E. L. Volgenan, D.V.S.; Treasurer, F. J. Dodin, D.V.S.; Librarian, E. J. Nesbitt, D.V.S.

After the commencement, which was held in Chickering Hall, the Faculty, Alumni and invited guests repaired to Clark's, where the annual alumni dinner was served. The following toasts were responded to:

Prof. A. Liautard, M.D.V.M., Faculty of American Veterinary College; Prof. F. D. Weisse, M.D., Board of Trus-

tees; Prof. A. W. Stein, M.D., Value of Physiology in Diagnosing; Prof. Chas. A. Doremus, M.D., Ph.D., New Remedies; Prof. James L. Robertson, M.D.V.S., Progress of Veterinary Science; F. H. Osgood, B.S., M.R.C.V.S., Our Sister Veterinary Schools; Prof. J. Elmer Ryder, D.V.S., Our Alumni Association; W. Horace Hoskins, D.V.S., Veterinary Societies; W. H. Lowe, D.V.S.; Fraternal Feeling; E. L. Volgenan, D.V.S., '93; L. H. Friedburg, Ph.D., Toast of Toasts.

The dinner was a very successful one, and was terminated by the drinking of a silent toast to the three members of the Association who had died during the last year.

E. L. VOLGENAN, D.V.S., *Sec.*

MARYLAND STATE VETERINARY MEDICAL ASSOCIATION.

The Maryland State Veterinary Medical Association held its sixty-eighth regular meeting at the Studio, Baltimore, Md., on Monday evening, March 27th, 1893.

The following members answered the roll call: Drs. Dougherty, Meisner, Clement, Faville and Martenet. The minutes of the last meeting were read and approved.

Dr. Dougherty, as Chairman of the Ambulance Committee, presented a rough sketch of an ambulance for the recumbent position, which was discussed freely by the members in all its points in order to obtain plans for a perfect ambulance, and the matter referred back to the committee.

The matter of entertaining foreign visitors to the International meeting was again discussed and postponed until definite intelligence might be received from veterinarians of other States.

Ex-Secretary and Treasurer Meisner read his report, showing a balance on hand of \$53.72, and the report was accepted.

Dr. Martenet mentioned the desirability of increasing the membership, and recalled the fact that our charter embraces Maryland and District of Columbia, and stated his intention of communicating with eligible veterinarians.

The report of the Board of Censors for its meeting of November 21st, 1892, was read, and after much discussion was received and the charges dismissed.

The application for membership of Stuart E. Paulet (Chi-

cago), Cumberland, Md., was received through Dr. Meisner, and referred to the Board of Censors.

A report of a case of "constriction of the rectum" was then read by Dr. Martenet, and was freely discussed, as were other interesting reports.

The members then engaged in the pleasurable privilege of "chipping in" for the gold headed cane which the Society had the honor of presenting its esteemed member, Dr. Thos. F. Barron, on the occasion of his birthday anniversary. Adjournment followed.

W. H. MARTENET, *Sec.*

COLLEGE COMMENCEMENTS.

NATIONAL VETERINARY COLLEGE OF WASHINGTON, D. C.

Though this institution is of recent organization, and the first course of lectures only delivered this winter—the following gentlemen represent the graduating class: J. Payne Lowe, D.V.S., Orin C. Bradley, John W. Stewart, Gurdon G. Sill, Hollis Haydon, Thomas A. Barron.

The addresses of these new D.V.S. are unknown to us.

ONTARIO VETERINARY COLLEGE.

The closing exercises of session 1892-93 of the Ontario Veterinary College were held in the College building, Toronto, on Friday, March 24th. Prof. A. Smith, Principal of the college, presided, and seated beside him on the platform were his Hon. Lieutenant-Governor Kirkpatrick, Sir Casimir Czowski, Hon. John Dryden, Minister of Agriculture, J. J. Withrow, Esq., J. L. Hughes, Esq., Inspectors of Public Schools, Dr. G. S. Ryerson, M. P. P., G. B. Smith, M. P. P., and several other prominent gentlemen.

Speeches of congratulation and advice to the recent graduates and prize-winners were received with frequent bursts of applause. At the conclusion of the ceremonies, the Principal, Prof. Smith, was presented with a magnificent picture of the graduating class, by Mr. H. D. Martin of Buffalo, on behalf of the class.

Prof. Smith, in thanking the students for their gift, spoke

eloquently of the kindly feeling which always existed between the students and the different professors.

The following is the list of graduates:

Francis Abele, Jr., Boston, Mass.; A. M. Adams, Canal Dover, Ohio; Charles H. Adams, Stouffville, Ont.; William E. Adams, Stouffville, Ont.; James Airth, Port Elgin, Ont.; Albert E. Alexander, Strathroy, Ont.; L. A. Anderson, Cincinnati, Ohio; John Armstrong, Locust Hill, Ont.; Albert C. Baker, Courtland, N. Y.; Robert Barnes, Poplar Hill, Ont.; William C. Barth, Leavenworth, Kansas; John M. Boyles, Mongolia, Ont.; James Beath, Columbus, Ont.; F. M. Bertrow, Canisteo, N. Y.; Oscar Biehn, Jr., Coopersburg, Pa.; Frank M. Blatchford, New Hamburg, Ont.; Albert T. Bowman, Canton, Ohio; James L. Brooks, Fingal, Ont.; Edward W. Brumter, Wooster, Ohio; Albert Bryant, Lucan, Ont.; Robert Finlay Campbell, Whitby Ont.; Eugene M. Casey, New Milford, Pa.; Fred H. Cassels, Tacoma, Wash.; Robert Cassels, Wingham, Ont.; George R. Christian, Glenne Valley, Ind.; William E. Coleman, Toronto, Ont.; Robert E. Collins, Lovelton, Pa.; Henry L. B. Coote, Minnedosa, Man.; C. M. Culbertson, Durham, Ont.; William Davidson, Harristown, Ont.; William H. Derr, Wooster, Ohio; James D. Deyell, South Monaghan, Ont.; P. A. Dillahun, Springfield, Ohio; Henry Domville, St. John, N. B.; Eugene E. Dooling, Syracuse, N. Y.; George W. Dunlap, Goodville, Pa.; Nelson D. R. Eakin, Toronto, Ont.; Edwin W. Emery, Maumee, Ohio; Fred Evans, Avoca, Neb.; Albert C. Ewart, Wyoming, Ont.; Harry V. Fenn, Colchester, Eng.; John A. Filsinger, Syracuse, N. Y.; Duncan Fisher, Grandin, N. Dakota; Michael J. Foran, Auburn, N. Y.; Charles B. Frederick, Freeburg, Ohio; Frank E. Freeman, Belfast, Me.; George D. Gibson, Brandon, Man.; Horace M. Gohn, Thornhill, Ont.; William F. Graham, Door Village, Ind.; Frank C. Grayson, Paxton, Ill.; Philip Harrison, Bad Axe, Mich.; William Harrison, Bad Axe, Mich.; John Halton, Glenboro, Man.; E. M. Herrington, Picton, Ont.; Charles J. Hinkley, Odebolt, Iowa; Charles W. Holley, Ralston, Pa.; E. J. Hopkins, Newboro, Ont.; Geo. Howell, Vernon, Ont.; Arthur M. Humphrey, Darien Centre, N. Y.; Edward Humphrey, Remington, Ohio;

Buoy R. Ilsley, Weymouth, Nova Scotia; Richard J. Jelly, Mossley, Ont.; Edward L. Kalb, Rochester, Minn.; Milton J. Kellam, Rainham Centre, Ont.; Daniel M. Kellogg, Reynolds-ville, N. Y.; Henry F. Kennedy, West Union, Iowa; William H. Kerr, Urbano, Ohio; Joseph Kime, Jr., Chatham, Ont.; Daniel R. Kohler, Kultztown, Pa.; Karl H. Kolbe, Napoleon, Ohio; Virgil Lathrop, Albany, N. Y.; F. E. Lawton, Paris, Ill.; Charles E. Leist, Circleville, Ohio; John P. Lemon, Cresco, Iowa; Frank M. Linscott, Holton, Kansas; Edwin D. Longacre, Longacre, Pa.; Charles B. McAndless, Ilderton, Ont.; W. J. H. McBride, Amherstburg, Ont.; George McCluskey, Orangeville, Ont.; James McGillicuddy, Walford, Ont.; James F. McGregor, Delaware, Ont.; Alex. M. McKay, Morewood, Ont.; Alex. H. McKellar, Washburn, Iowa; Arthur McKercher, Petrolea, Ont.; Ellis McLain, Nanticoke, Ont.; John A. McMaster, Guelph, Ont.; Harry T. Madden, Greenfield, Ill.; R. H. Madill, Streetville, Ont.; D. M. Mahorney, Ladoga, Ind.; George O. Manser, Linwood, Ont.; John H. Marbes, Syracuse, N. Y.; Harry Delos Martin, Buffalo, N. Y.; John William Mather, Rohrsburg, Pa.; W. H. B. Medd, Larchwood, Iowa; J. Harvey Mettlen, Wakefield, Neb.; Chester Miller, Ottumwa, Iowa; Albert W. Moore, Charlevoix, Mich.; L. G. Moore, Trenton, N. J.; W. J. Morgan, Kingston, Ont.; Bruce D. Monroe, Whitehall, Pa.; Thomas H. Murray, Medo, Minn.; Thomas W. Orme, London, Ont.; James W. Orr, New Hamburg, Ont.; Thos. Packwood, Goderich, Ont.; Charles E. Parker, Dexter, Mich.; John M. Pattison, Bentonville, Ind.; Romanzo Perkins, Hardys, N. Y.; Harry H. Post, Melville, Ont.; Edwin L. Price, Reynoldsburg, Ohio; C. K. Rhodes, Broadway, Va.; H. A. Rose, Selkirk, Ont.; Isaac A. Ruby, North Liberty, Ohio; William H. Salisbury, Phelps, N. Y.; Harry G. Sands, Welliversville, Pa.; Daniel E. Seller, Minden City, Mich.; Albert G. Shirley, Watford, Ont.; Elvin E. Shoebottom, Lucknow, Ont.; G. D. Showaiter, Broadway, Va.; Charles J. Sigmond, Minneapolis, Minn.; Septimus Marshall Smith, Moosomin, N. W. T.; Andrew Spence, Emerson, Man.; Oliver K. Steers, Midland, Ont.; John P. Stover, Shady Grove, Pa.; Elmer E. Sweeley, Warrensville, Pa.; Thomas J. Sweet, Mo-

dan, Man.; William B. Switzer, Williamson, N. Y.; H. Linwood Tower, North Adams, Mass.; John B. Turner, Butler, Ill.; Alexander S. Tweedley, Buffalo, N. Y.; Leunis Van Es, Steward, Neb.; Oscar Verschelden, St. Mary's Kansas; Jacob E. Walcott, Napoleon, Ohio; William H. Walcott, Napoleon, Ohio; Thomas Walden, Gore's Landing, Ont.; William Bert Washburn, Richfield Centre, Ohio; Thomas E. Watson, Nelson, Ont.; Henry J. Weld, Delaware, Ont.; George Howard Welliver, Bloomsburg, Pa.; T. Townsend Whitling, Island Lake, Minn.; Edward Wilkins, Camden, N. J.; Maurice E. Wilson, Estherville, Iowa; E. A. Wootton, Wellman's Corners, Ont.; Edwin C. Yoder, Kutztown, Pa.; George J. Young, Marshallton, Pa.; Charles C. Yule, Weston, Ohio.

McGILL UNIVERSITY—VETERINARY DEPARTMENT.

The students of the Faculty of Comparative Medicine and Veterinary Science, in connection with McGill University, mustered in force on March 30th in the William Molson Hall, accompanied by their friends, to witness the conferring of the degree D.V.S. upon the graduating class of '93.

Mr. S. Finley presided, and accompanying him on the platform were Hon. H. G. Joly de Lotbiniere, Prof. Johnson, Vice-Principal of the university; Dr. McEachran, Dean of the Faculty of Comparative Medicine and Veterinary Science; Rev. Dr. Cornish, Professors T. Wesley Mills, Moyse, Penhallow, Adams, Drs. M. C. Baker, Girdwood, Ruttan, Brackenridge, acting secretary of the university; Mr. W. E. Deeks and Mr. N. S. Blackwood.

The proceedings were opened with prayer by the Rev. Dr. Cornish, after which the Faculty lists were submitted by Dean McEachran, who said that the duties of the session had been performed most earnestly both by the professors and the students, and, considering the many drawbacks which the Faculty labored under, the progress had been most satisfactory. There was every confidence that one and all who were about to receive their degrees had earned them, and that they would be a credit to the Faculty in the practice of their profession. He expressed regret at the illness of Sir

William Dawson, but rejoiced that he would soon return to Montreal restored to health. He concluded by giving the members of the veterinary class some sound, practical advice as to their conduct in practicing their profession, urging them to deal fairly and honestly with all men. He then read the sessional report, which showed that the number of students who attended the full course was 58, viz., from the United States, 18; Canada, 38; England, 1; Hawaiian Islands, 1.

Prizes and honors won by the students were then awarded:

PRIZES.

Veterinary Medicine and Surgery, Wilfred Plaskett. Anatomy, Cecil French. Cattle Pathology, Wilfred Plaskett. Zoology, Wm. Ingles. Botany, C. H. Zink, Jr. Physiology, Cecil French. Chemistry, Cecil French. For the best general examination on all subjects, Wilfred Plaskett. (Silver medal).

SCHOLARSHIPS.

For the highest aggregate obtained in first year subjects (fifty dollars), Cecil French.

EXTRA PRIZES.

The degree of D.V.S. was then conferred upon the graduating class as follows:—the newly-fledged "vets" being "capped" by Prof. Johnson—E. Brainerd, J. G. Campbell, A. S. Cleaves, H. E. Denny, H. B. Dunton, A. S. Lamb, James McDougall, W. C. McGuire, G. O. Orr, W. S. Plaskett, Jos. Stephens, T. Sturrock, S. W. Thayer, A. M. Tracy, M. C. Wylie.

This was followed by W. S. Plaskett delivering the valedictory, in which sound thought was judiciously mixed with sufficient lighter material to make the whole very pleasant.

Prof. Penhallow impressed upon those who had just received their degrees the great responsibilities they had undertaken. It was quite probable that the learning they had acquired might enable them to diagnose and treat disease in a skillful and successful manner, but from those who had received such a training the world had a right to expect something more than mere work for pecuniary reward. It was

only by persistent effort, wisely directed, that the standing of the profession could be advanced, and they had learned enough in their course of study to know that they were only standing on the threshold of that great region of light which lay beyond. He spoke of the brutality which was often practiced by drivers upon horses, and urged those about going forth to practice their profession to labor hard, by their counsel and example to bring about a better state of things, and to support those societies which had for their object the prevention of cruelty to animals. In conclusion he spoke of the pressing needs of the Faculty regarding more and better accommodations.

The Hon. H. G. Joly de Lotbiniere said it was no use pretending to enable farmers to better their position unless everything possible was done to improve the instruction given in our veterinary colleges, so as to meet the requirements of the improved agriculture. The time was now passed when the farmer sold everything that his land produced; now he tried to return to the land what he received from it, and the more this new agriculture policy prevailed, the more important to the farmer became the vocation of the veterinary surgeon. He wished the members of the graduating class all success in their future career, and expressed the hope that before anything else they would endeavor to make for themselves a good name.

Prof. Johnson spoke of the prejudice which existed in some quarters against the Faculty, because, as he thought, it was not generally known that it was a branch of the medical Faculty, which, with its broad shoulders, took upon itself the responsibility of the Faculty of Comparative Medicine and Veterinary Science. Looking at the history of other faculties and professions there was good reason to hope that when this becomes properly known the prejudice would disappear.

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